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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, THANH T

ART UNIT PAPER NUMBER

2144

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/575,839

Applicant(s)

AYERS ET AL.

Examiner

Tammy T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21, 32-53 and 64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 32-53, and 64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 May 2000 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6/24/04 6) ☐ Other:



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Detailed Office Action

1. Claims 1-21, 32-53, and 64 are presented for examination.
2. Claims 22-31, and 54-63 are cancelled.
3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 28, 2004 has been entered.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 1-8, 10-18, 20, 21, 32-40, 42-50, 52, 53, and 64 are rejected under 35 U.S.C.

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103(a) as being unpatentable over Colby et al., (hereinafter Colby) U.S. Patent No. 6,006,264, and Spicer et al., (hereinafter Spicer) U.S. Patent No. 6,591,298 in view of Jang, jae-Shin., (hereinafter Jang) U.S. Patent No. 6,526,283.

6. As to claim 1, Colby teaches the invention as claimed, including a method for directing a network client requesting access to content to one of a plurality of content servers that can provide said content, comprising:

communication between the network client and one or more of the plurality of content servers, then directing the network client to a said one of said content servers based on the one or more cost measurements (col.2, lines 47-59);

Otherwise, directing the network client to a said one of said content servers based on communication between a client that is physically proximate to the network client and one or more of the plurality of content servers (Fig.1 shows directing the network client to content servers). But Colby does not teach cost measurement are available that measure operational characteristics of the network. However, Spicer teaches cost measurement are available that measure operational characteristics of the network (col.1, lines 47-50, col.2, lines 15-45, and col.4, line 65 to col.5, line 30). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Colby and Spicer to have a cost measurement are available that measure operational characteristics of the network because it would be useful to have measurements used to detect problems with content, network, a web server, and back end system, or combinations thereof.

7. A to claim 2, Colby teaches the invention as claimed, further comprising:

obtaining a new cost measurement when said network client accesses said content server (col.3, lines 10-27, and col.2, lines 47-58); and

using said new cost measurement as an indicator of operational characteristics of the network in connection with subsequent requests for access to said content that can be provided by said content server (col.14, lines 53-67).

8. As to claim 3, Colby teaches the invention as claimed, wherein said content servers are associated with a network server having an identity (col.3, lines 10-27, and col.14, lines 55-67), and wherein said network client requests content from said network server, and further comprising:

mapping the identity of the network server (content-aware flow switch 110) to said content servers (col.8, lines 34-55).

9. As to claim 4, Colby teaches the invention as claimed, further comprising measuring network performance between said network client and a said one of said content servers (col.2, lines 47-58, and col.3, lines 10-27).

10. As to claim 5, Colby teaches the invention as claimed, wherein an attribute of network performance comprises network latency (col.15, lines 1-48).

11. As to claim 6, Colby teaches the invention as claimed, wherein network latency is measured passively by determining the time between a syn ack message sent by said network client and an ack message sent by one of said content servers (col.8, lines 34-55, and col.3, lines 10-27).

12. As to claim 7, Colby teaches the invention as claimed, further comprising measuring

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network performance between said network client and another of said content servers (col.11, line 60 to col.12, line 5).

13. As to claim 8, Colby teaches the invention as claimed, further comprising determining the location of said network client by circular intersection (Fig.1A circular intersection).

14. As to claim 10, Colby teaches the invention as claimed, further comprising inferring network performance of serving said network client from said content server by determining a weighted average of network performance between said content server and other network clients based on physical proximity of said other network clients to said network client and performance of said content server for said other network clients (col.7, line 58 to col.8, line 15, and col.16, lines 40-65).

15. As to claim 11, Colby teaches the invention as claimed, further comprising:

(a) measuring network latency between a content server and a plurality of other network clients (col.17, lines 38-58, and col.18, lines 63 to col.19, line 7);

(b) determining physical distances between said other network clients and said network client (col.7, line 58 to col.8, line 15, and col.16, lines 40-65); and

(c) computing a weighted average of said latency measurements as a function of said distances, wherein said weighed average comprises an estimate of the latency between said network server and said inferable network client (col.7, line 58 to col.8, line 15, and col.16, lines 40-65).

16. As to claim 12, Colby teaches the invention as claimed, including a method for

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directing a network client requesting access to content from a network server to one of a plurality of content servers that can provide said content, each said content server having an address, said network server having an identity, said method comprising:

(a) identifying a network server associated with content requested by said network client (col.3, lines 10-28, and col.9, lines 1-35);

(b) communication between the network client and one or more of the plurality of content servers, then directing the network client to a said one of said content servers based on the one or more cost measurements (col.2, lines 47-59);

Otherwise, directing the network client to a said one of said content servers based on communication between a client that is physically proximate to the network client and one or more of the plurality of content servers (Fig.1 shows directing the network client to content servers).

providing the network client with the address of said content server identified (col.10, lines 1-39) in step (b).

But Colby does not teach cost measurement are available that measure operational characteristics of the network. However, Spicer teaches cost measurement are available that measure operational characteristics of the network (col.1, lines 47-50, col.2, lines 15-45, and col.4, line 65 to col.5, line 30). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Colby and Spicer to have a cost measurement are available that measure operational characteristics of the network because it would be useful to have measurements used to detect problems with content, network, a web server, and back end system, or combinations thereof.

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17. As to claim 32, Colby teaches the invention as claimed, including a method for inferring operational characteristics associated with a plurality of network clients to an inferable network client, comprising:

(a) measuring network latency between a network server and a plurality of network clients (col.3, lines 10-27, Fig.19, col.17, lines 38-58, col.18, line 63 to col.19, line 7, and col.15, lines 1-49);

(b) determining physical distances between said network clients and an inferable network client (col.7, line 58 to col.8, line 15, and col.16, lines 40-65); and

(c) computing a weighted average of said latency measurements as a function of said distances, wherein said weighed average comprises an estimate of the latency between said network server and said inferable network client (col.7, line 58 to col.8, line 15, and col.16, lines 40-65).

18. Claims 33, and 44 have similar limitations a claim 1; therefore, it is rejected under the same rationale.

19. Claims 13,14-18,20, 34,36-40, 42, 45, 46-50, 52, have similar limitations as claims 2, 4-8, and 10; therefore, they are rejected under the same rationale.

20. Claims 11, 21, 43, 53 and 64, have similar limitations as claim 32; therefore, they are rejected under same rationale.

21. Claim 44 has similar limitations as claim 12; therefore, it is rejected under same rationale.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

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obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claims 9, 19, 41, 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colby et al., (hereinafter Colby) U.S. Patent No. 6,006,264 in view of Jang, jae-Shin., (hereinafter Jang) U.S. Patent No. 6,526,283.

24. As to claim 9, Colby teaches the invention as claimed, including a method for determining the physical location of a network client comprising:

(a) measuring the time that it takes for data to move from a plurality of network server locations to a network client (abstract, col.2, lines 47-67, col.17, lines 40-59, and col.20, lines 25-39);

(b) converting said times to distance equivalents (col.15, lines 10-30).

Colby and Spicer do not explicitly teach a forming a plurality of intersecting circles using said distance equivalents as the radius of circles with said network server locations as the center; and determining the physical location of said network client from the intersection of said circles. However, Jang teaches a forming a plurality of intersecting circles using said distance equivalents as the radius of circles with said network server locations (Base stations) as the center (col.6, lines 55-67); and determining the physical location of said network client (Mobile telephone) from the intersection of said circles (Abstract, col.2, lines 21-36, col.4, lines 32-44, and col.4, lines 48-67). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of Colby, Spicer and Jang to have a performing a plurality of intersecting circle using distance equivalents a the radius of

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circle with network server locations as center and determining the physical location of client from the intersection of circle because it would have an efficient system that can provide specific degree or amount of separation between two points, lines, surfaces, or objects or an advance along a route measured linearly.

25. Claims 9, 19, 41, 51, and 60 have similar limitations as claim 31; therefore, they are rejected under the same rationale.

Conclusion

26. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Tammy T. Nguyen** who may be reached via telephone at **(703) 305-7982**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:30 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding this instant application, please send it to **(703) 872-9306**. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Bill Cuchlinski, may be reached at **(703) 308-3873**.

TTN

July 6, 2004



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